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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,273	01/26/2001	Akihiro Shimotsu	A0-234 US	7981

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MOLEX INCORPORATED  
2222 WELLINGTON COURT  
LISLE, IL 60532

EXAMINER

DOAN, JENNIFER

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 05/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/771,273

Applicant(s)

SHIMOTSU, AKIHIRO

Examiner

Jennifer Doan

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 February 0202.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-8 is/are rejected.
- 7) ☒ Claim(s) 5 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### DETAILED ACTION

Applicant's communication filed on February 20, 2002 has been carefully studied by the Examiner. The arguments advanced therein, considered together with the amendment made to the claims, are persuasive and the rejections set forth in the previous Office Action are withdrawn. In view of further search, however, and the consequent discovery of a relevant prior art document, a new rejection is set forth below. This action is **not** made final.

The examiner agrees with the applicant that Yamane reference does not disclose a ferrule having a capillary having two opposing ends and a hole for inserting an optical fiber and a flange molded on the intermediate of the capillary outer surface. However, a relevant reference is found in view of further search. A new rejection is therefore applied.

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Specification***

2. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (U.S. Patent 6,341,191).

Takahashi discloses, in Figs. 1B, 1C and 1D, a ferrule for an optical fiber comprising a capillary (8) having two opposing ends and a hole extending between the opposing ends for insertion of an optical fiber (10); a flange (14) molded on a capillary outer surface; a recess portion (column 3, line 22); a projecting portion (16); wherein the recess portion is formed in the capillary outer surface and the projecting portion is formed integral with the flange as shown in Figs. 1C and 1D and wherein the flange (14) having a cylindrical outer surface comprising a large and small diameter portions as shown in Fig. 1B

Takahashi does not disclose a flange molded on the intermediate of the capillary outer surface as recited in claims 1 and 7. However, a flange molded on the intermediate of the capillary outer surface is considered to be an obvious choice in design, since positioning the flange on the capillary outer surface is one of many means to protect the ferrule device. Therefore, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to form the flange onto the intermediate of Takahashi capillary outer surface for protecting the ferrule.

Takahashi discloses every aspect of claimed invention except for a flange molded from a plastic material as recited in claim 2. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a flange molded with the claimed material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

#### ***Allowable Subject Matter***

5. Claims 5 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to disclose or reasonably suggest a ferrule for an optical fiber comprising a recess portion is formed integral with the flange and a projecting portion is formed in the capillary outer surface and filling a space surrounding the projecting portion with a molding material during molding as recited in claims 5 and 9.

#### ***Conclusion***

6. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

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7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shirakawa (U.S. Patent 6,325,548) shows an optical fiber fixing structure of a ferrule.

8. Any inquiry concerning the merits of this communication should be directed to Examiner Jennifer Doan whose telephone number is (703) 308-6179. The examiner can normally be reached on Monday to Thursday from 6:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick, can be reached on (703) 308-4819. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

*Jennifer Doan*

Jennifer Doan

Patent Examiner

May 09, 2002

*Adam E. Ulan*  
Adam E. Ulan  
Primary Examiner